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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/828,480	04/21/2004	John Lair	64337.000002	7194

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EXAMINER

CAI, WAYNE HUU

ART UNIT

PAPER NUMBER

2681

DATE MAILED: 01/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/828,480

Applicant(s)

LAIR, JOHN

Examiner

Wayne Cai

Art Unit

2681

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-16 and 18-42 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-16,18-42 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

This Office Action is in response to Amendment dated 12/20/2005.

Response to Amendment

1. The Examiner respectfully accepts the Applicants' response to previous office action dated August 22, 2005. However, the Examiner would not be able to consider the patentability based on the commercial success since new search results reveals an prior art or disclosure that could be used to reject the instant application under 35 U.S.C. 102.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 4, 15-16, 18-26, 30-31, 33, 34-39, and 41-42 are rejected under 35 U.S.C. 102(e) as being anticipated by Seibert et al. (US – 6,745,014 B1).

Regarding claim 1, Seibert discloses a wireless headset (fig. 1, element 15) for communicating audio information to and from a half-duplex communications device, the wireless headset comprising:

- a speaker assembly adapted to be worn on a user's head and to output audio information to the user (fig. 1, element 44);
- a microphone assembly adapted to receive audio information from the user (fig. 1, element 42);
- a switch (fig. 1, element 30);
- a transceiver (fig. 1, element 38) adapted to transmit a signal representative of an engagement of the switch to the half-duplex communications device, the signal for causing the half-duplex communications device to enter a half-duplex transmission mode (col. 3, line 36 – col. 4, line 9).

Regarding claim 4, Seibert discloses the wireless headset of claim 1 as described above. Seibert also discloses a means for wirelessly transmitting at least a portion of the audio information from the user (see abstract).

Regarding claims 15-16, Seibert disclose the wireless headset of claim 1 as described above. It is also inherent that the signal representative of an engagement of the switch includes a signal transmitted or an absence of a signal during at least a portion of a period that the switch is engaged.

Regarding claim 18, Seibert discloses an apparatus comprising:

- an interface for operable connection to a communications device (fig. 1, elements 12, or 40, and its descriptions);
- a transceiver adapted to receive signals from a wireless headset (fig. 1, element 38);

Art Unit: 2681

- a processor (fig. 1, element 18) connected to the transceiver for receiving a first transmit mode signal indicating engagement of a switch (fig. 1, element 36);
- the processor (fig. 1, element 18) connected to the interface for providing a second transmit mode signal to the half-duplex communications device to direct the half-duplex communications device to switch to a half-duplex transmit mode (fig. 1, elements 46, 48, and 50).

Regarding claim 19, Seibert discloses the apparatus of claim 18 as described above. Seibert further discloses wherein the processor is adapted to receive audio information via the transceiver and provide the audio information to communications device via the interface (see fig. 1, and its descriptions).

Regarding claim 20, Seibert discloses the apparatus of claim 19 as described above. Seibert also discloses wherein the audio information is transmitted from the wireless headset (abstract).

Regarding claim 21, Seibert discloses the apparatus of claim 18 as described above. Seibert also discloses wherein the processor is adapted to receive audio information from the communications device (fig. 1, elements 46 & 48) via the interface and transmit at least a portion of the audio information via the transceiver (col. 4, lines 30-49).

Regarding claim 22, Seibert discloses the apparatus of claim 18 as described above. It is inherent that the first transmit mode signal is received from the wireless headset.

Regarding claim 23, Seibert discloses the apparatus of claim 18 as described above. Seibert also discloses the first transmit mode signal is received from a wireless transmit switch assembly (col. 3, lines 49-61).

Regarding claims 24-25, Seibert discloses the apparatus of claim 18 as described above. Seibert also discloses the apparatus (fig. 1, elements 12, or 40) is integrated/separate from the half-duplex communications device (fig. 1, element 14).

Regarding claim 26, Seibert discloses a system comprising:

- a half-duplex communications device (fig. 1, element 14);
- a headset wirelessly connected to the half-duplex communications device (fig. 1, element 15, and its descriptions);
- wherein the headset is adapted to transmit a transmit mode signal for reception by the half-duplex communications device, the transmit mode signal causing the half-duplex communications device to enter a half-duplex transmission mode (col. 3, line 36 – col. 4, line 9);
- wherein the half-duplex communications device is adapted to transmit in the half-duplex transmission mode audio information based at least in part upon receipt of the transmit mode signal (col. 3, line 36 – col. 4, line 9).

Regarding claims 30-31, Seibert discloses the system of claim 26 as described above. Seibert also disclose wherein the headset is further adapted to wirelessly transmit the audio information for reception by the half-duplex communications device or vice versa (i.e., the wireless headset wirelessly communicate with the adapter 12, and communication device 14 as described by Seibert).

Regarding claim 34, Seibert discloses a system comprising:

- a half-duplex communications device (fig.1, element 14);
- a transmit switch assembly connected to the half-duplex communications device (element 30);
- wherein the headset is adapted transmit a transmit mode signal for reception by the half-duplex communications device, the transmit mode signal causing the half-duplex communications device to enter a half-duplex transmission mode (col. 3, line 62 – col. 4, line 9);
- wherein the half-duplex communications device is adapted to transmit in the half-duplex transmission mode audio information received from the headset based at least in part upon receipt of the transmit mode signal (i.e., push to talk, or release to listen).

Regarding claims 35-37, Seibert discloses the system of claim 34 as described above. It is inherent that the transmit switch assembly includes a switch operable by a user and wherein the transmit mode signal is transmitted when the switch is engaged by a user, and wherein the transmit mode signal includes a signal transmitted/absence during at least a portion of a period that the switch is engaged.

Regarding claim 38, Seibert discloses the system of claim 34 as described above. Seibert also discloses the headset is adapted to wirelessly transmit the audio information for reception by the half-duplex communications device (fig. 1, elements 15, 40, 24, and 12; and its descriptions).

Regarding claim 39, Seibert discloses the system of claim 38 as described above. Seibert also discloses wherein the communications device is adapted to wirelessly transmit audio information by reception by the headset (i.e., the wireless headset 15 is wirelessly communication with the communication device 14).

Regarding claims 33, and 41, Seibert discloses the system of claims 26, and 34 as described above. Seibert also discloses wherein the half-duplex communications device is selected from one of a group comprising: a two-way radio, and a cellular phone (fig. 1, element 15).

Regarding claim 42, Seibert discloses the system of claim 1 as described above. Seibert also discloses a body supporting the speaker assembly (see fig. 1, element 15).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 3; 7-14, and 27-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Seibert in view of Lenz (US – 5,101,504).

Regarding claims 3, 11, and 13, Seibert discloses the wireless headset of claim 1 as described above, except wherein the switch is positioned on the microphone assembly.

In a similar endeavor, Lenz discloses a shoulder activated headset. Lenz also discloses wherein the switch is positioned on the microphone assembly (fig. 1, element 24).

It would have been obvious to one of ordinary skill in the art to incorporate Seibert's wireless push-to-talk headset with a switch positioned on the microphone assembly because it is more convenient for user to reach to the switch. The position of the switch is not critical, and it does not affect the functionality of the wireless push-to-talk headset. Hence, it is not novel.

Regarding claims 7-10, and 12, Seibert discloses the wireless headset of claim 1 as described above. The wireless headset further comprising the earclip, headband, the speaker assembly includes an earbud speaker, the speaker assembly includes an ear insert for insertion into the user's ear canal wherein the ear insert comprises a conformable material is well known in the art since it is just a variation in design or style of the wireless headsets.

Regarding claim 14, Seibert discloses the wireless headset of claim 42 as described above, except wherein the switch is connected to a main body of the headset via a wire lead.

In similar endeavor, Lenz disclose a shoulder activated headset. Lenz also discloses wherein the switch (element 24) is connected to a main body of the headset via a wire lead (fig.2 and its descriptions).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to include a wire lead so that it could be connected among the electronic components.

Regarding claims 27, Seibert discloses the system of claim 26 as described above, except wherein the headset includes a switch operable by a user and wherein the transmit mode signal is transmitted when the switch is engaged by the user.

In similar endeavor, Lenz disclose a shoulder activated headset. Lenz also discloses wherein the headset includes a switch operable by a user and wherein the transmit mode signal is transmitted when the switch is engaged by the user (col. 2, lines 28-30, and fig.1, element 24).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to include a switch so that user could push to talk, and release to listen.

Regarding claim 28, Seibert, and Lenz disclose the system of claim 27 as described above. Lenz further discloses, wherein the transmit mode signal includes a signal transmitted during at least a portion of a period that the switch is engaged (abstract, column 2, lines 28-30).

Regarding claim 29, Seibert, and Lenz disclose the system of claim 27 as described above. Lenz discloses a "push to talk" switch, but Lenz is silent on the transmit mode signal includes an absence of a signal during at least a portion of a period that the switch is engaged. However, it is obvious to one skilled in the art that there is an absence of a signal during at least a portion of a period that the switch is

engaged because the 2-way radio disclosed by Lenz is a half-duplex communications device. Therefore, there must be a gap in signal between the transmit mode and receive mode.

6. Claims 5-6, 32, and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lenz in view of Chen (US 2002/0057746 A1).

Regarding claims 5, 32 and 40, Seibert discloses the wireless headset, and the system of claims 4, 31, and 39 as described above, except for disclosing at least a portion of the audio information from the user is transmitted as packetized digital information.

In a similar endeavor, Chen discloses an apparatus for receiving and recovering frequency shift keyed symbols. Chen also discloses at least a portion of the audio information from the user is transmitted as packetized digital information (paragraph 0019).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate Seibert's wireless headset with a transmitting audio information as packetized digital information to improve the quality of the audio information.

Regarding claim 6, Lenz, and Chen both disclose the wireless headset of claim 5 as described above, except for the means for:

- an encoder adapted to convert an analog signal representative of the audio information from the user to a digital signal;

- a processor operably connected to the encoder and the transceiver, the processor adapted to packetize the digital signal;
- wherein the transceiver is further adapted to wirelessly transmit the packetized digital signal;

In a similar endeavor, Chen discloses an apparatus for receiving and recovering frequency shift keyed symbols. Chen further discloses:

- a processor operably connected to the encoder and adapted to packetize the digital signal (paragraph 0019, and figure 4, item 302);
- a transceiver and antenna operably connected to the processor and adapted to wirelessly transmit the packetized digital signal (paragraph 0019, and figure 4, items 101, and 200).

It is well known in the art to include an encoder adapted to convert an analog signal representative of the audio information to a digital signal.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include an encoder, a processor, and a transceiver to process the digital signal from the wireless headset.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- "A – Technology Briefing: Wireless Communications Headset Subsystem to Enhance Signal Conditioning" by Susan Brown

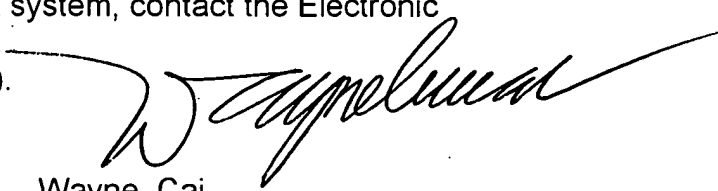
Art Unit: 2681

- "Wireless Communications Headset Subsystem to Enhance Signaling"

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wayne Cai whose telephone number is (571) 272-7798. The examiner can normally be reached on Monday-Friday; 9:00-6:00; alternating Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Feild can be reached on (571) 272-4090. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Wayne Cai
Examiner
Art Unit 2681



ERIKA A. GARY
PRIMARY EXAMINER